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Response to Office Action Dated 11/02/2005

REMARKS

This Response is submitted in response to the Office Action of 11/02/2005.

- 5 A) Claims 1—5, 7—15, 17—20 and 22—32 remain in original form.
- B) Claims 6, 16 and 21 claims are currently amended.
- C) Claims 1—32 were rejected.

In view of the following remarks, Applicant respectfully requests reconsideration of the rejected claims.

10 **35 U.S.C. §102**

According to the MPEP §2131, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. The identical invention must be shown in as complete detail as is contained in the claim.

- 15 Anticipation is a legal term of art. The applicant notes that in order to provide a valid finding of anticipation, several conditions must be met: (i) the reference must include every element of the claim within the four corners of the reference (see MPEP §2121); (ii) the elements must be set forth as they are recited in the claim (see MPEP §2131); (iii) the teachings of the reference cannot be
- 20 modified (see MPEP §706.02, stating that "No question of obviousness is present" in conjunction with anticipation); and (iv) the reference must enable the invention as recited in the claim (see MPEP §2121.01). Additionally, (v) these conditions must be simultaneously satisfied.

- The §102 rejection of claims 1—32 is believed to be in error.
- 25 Specifically, the PTO and Federal Circuit provide that §102 anticipation

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requires that each and every element of the claimed invention be disclosed in a single prior art reference. *In re Spada*, 911 F.2d 705, 15 USPQ2d 1655 (Fed. Cir. 1990). The corollary of this rule is that the absence from a cited §102 reference of any claimed element negates the anticipation. *Kloster*
5 *Speedsteel AB, et al. v. Crucible, Inc., et al.*, 793 F.2d 1565, 230 USPQ 81 (Fed. Cir. 1986).

Applicant notes the requirements of MPEP §2131, which states that “to anticipate a claim, the reference must teach every element of the claim.” This MPEP section further states that “A claim is anticipated only if each
10 and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.’ *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). ‘The identical invention must be shown in as complete detail as is contained in the ... claim.’ *Richardson v. Suzuki Motor Co.*, 868
15 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an ipsissimis verbis test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).”

20 **35 U.S.C. §102 Rejections**

Claims 1—32 were rejected under §102 as being anticipated by U.S. patent 5,991,515, herein after “Fall”. The Applicant respectfully traverses the rejection.

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Traversal of Rejection of Independent Claim 1

Claim 1 recites a processor-readable medium comprising processor-executable instructions for comprising:

- 5 • **comparing a rate of pattern repetition in data to recorded rates of pattern repetition;**
- **determining a content type using the rate of pattern repetition and the recorded rates of pattern repetition; and**
- 10 • **compressing and decompressing data in a manner appropriate to the content type.**

The Applicant submits that the Fall reference does not disclose “comparing a rate of pattern repetition in data to recorded rates of pattern repetition” and “determining a content type using the rate of pattern repetition and the recorded rates of pattern repetition”. In particular, Fall does not “compare a rate” and Fall does not use a “rate of pattern repetition” in determining content type. By comparing a rate of pattern repetition, the Applicant is able to determine a content type, and to thereby compress and decompress data in an appropriate manner. Fall fails to disclose this technology.

20 In contrast, the Fall reference discloses, at Fig. 4d—f, that a document may be partitioned into objects and regions. Further, Fall discloses at step 188 in Fig. 8 and column 25, lines 1—32, that the ‘type’ of the object or region is assigned and recorded to a data structure, i.e. to ‘OBJECT(I)’. The ‘type’ can be text, graphics or image. However, despite Fall fails to disclose “rates,” “pattern repetition” and

25 “recorded rates of pattern repetition.”

The Patent Office suggests that Fig. 4e shows “image data partitioned into blocks of data referred to as objects within regions”, and that Fig. 5 discloses, “new objects are compared to existing objects of the same type and stored in a collector if unique”. The Applicant respectfully disagrees that Fall discloses the

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elements recited by Claim 1, and respectfully disagrees that what the Patent Office's says is shown by Figs. 4e and 5 is actually relevant to the recited passage in Claim 1.

Assuming, arguendo, that Figs. 4e and 5 disclose what the Patent Office suggests, the Patent Office's suggested interpretation is not what is recited by the claims. Fall does not make, and the Patent Office does not directly suggest that Fall makes, any disclosure of *a rate of pattern repetition* or any disclosure of *comparing such rates*. Thus, Figs. 4e and 5 fail to disclose "comparing a rate of pattern repetition in data to recorded rates of pattern repetition".

10 The Patent Office suggests that Fig. 8b shows "determining a content type using the rate of pattern repetition and the recorded rates of pattern repetition". The Applicant respectfully disagrees.

What Fig. 8b actually shows is *how to select a compression algorithm given a known group of content types found in a given region*. (See block 194 Fig. 8, and column 27, lines 58—62.) Referring to Fig. 8b, it can be seen that there are eight potential situations for any given region. This is true since text, image and graphic are either present or not present in the region, and there are three of these data types. Thus, the three columns of "yes" and "no" result in eight rows. (I.e., two (yes or no) raised to the third power (text, graphics or image) is eight (8).) Therefore, there are eight potential situations for any region, and Fig. 8b tells you which compression algorithm to select. For example, if you have a region with text and an image, but no graphics, they you select the seventh algorithm in Fig. 8b. (See Fig. 8b, second to bottom line.)

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Accordingly, the operation of Fig. 8b in selecting the correct compression algorithm (see block 194 of Fig. 8) can be understood. To select the compression algorithm, you answer three questions (Is there text, yes or no? Is there an image, yes or no? Is there a graphic, yes or no?). Having done so, you simply select the
5 compression algorithm from the right side column. Thus, Fig. 8b tells you what compression algorithm to pick, given the content type as an input.

Thus, Fig. 8b does not disclose, “*determining a content type* using the rate of pattern repetition and the recorded rates of pattern repetition”. As we have seen, Fig. 8 does not disclose determining a content type. Instead, Fig. 8 discloses,
10 if you *already know* what content type (e.g. text, graphics and/or images) how to select a compression algorithm. Thus, the Applicant’s claim recites aspects of “determining a content type”, but Fig. 8b discloses selecting a compression algorithm if you already know the content type(s) in your region.

Thus, the Applicant submits that the Fall reference does not disclose
15 “comparing a rate of pattern repetition in data to recorded rates of pattern repetition” and “determining a content type using the rate of pattern repetition and the recorded rates of pattern repetition”. Accordingly, the Applicant respectfully requests that the rejection to Claim 1 be removed, and that Claim 1 be allowed to issue.

20 **Claims 2—5** depend from Claim 1 and are allowable due to their dependence from an allowable base claim. These claims are also allowable for their own recited features that, in combination with those recited in Claim 1, are neither disclosed nor suggested in references of record, either singly or in combination with one another.

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Traversal of Rejection of Independent Claim 6

5 **Claim 6** recites a system for data content recognition, compression, and decompression, comprising comprising:

- 10 • a data recognition module to recognize a content type of data, wherein the data recognition module compares a rate of pattern repetition in data to recorded rates of pattern repetition and determines a content type using the rate of pattern repetition and the recorded rates of pattern repetition;
- a compressor to compress the data according to the content type; and
- a decompressor to decompress the data according to the content type.

15 The Applicant has amended Claim 6 to include subject matter seen in Claim 1. Therefore, Claim 6 is allowable for at least the reasons Claim 1 is allowable. Accordingly, the Applicant incorporates by reference the arguments and remarks presented above, with respect to the traversal of the rejection of Claim 1.

20 **Claims 7—15** depend directly or indirectly from Claim 6 and are allowable due to their dependence from an allowable base claim. These claims are also allowable for their own recited features that, in combination with those recited in Claim 6, are neither disclosed nor suggested in references of record, either singly or in combination with one another.

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Traversal of Rejection of Independent Claim 16

Claim 16 recites a printer, comprising:

- 30 • a data recognition module to recognize a content type of device ready bits, wherein the data recognition module compares a rate of pattern repetition in the device ready bits to recorded rates of pattern repetition and determines a content type using the rate of pattern repetition and the recorded rates of pattern repetition;

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- a compressor to compress the device ready bits according to the content type of the device ready bits;
- a buffer to store the device ready bits after compression and before decompression;
- 5 • a decompressor to decompress the device ready bits according to compression of the device ready bits; and
- a print engine to receive the device ready bits after decompression.

The Applicant has amended Claim 16 to include subject matter similar to
10 that seen in Claim 1. Therefore, Claim 16 is allowable for at least the reasons Claim 1 is allowable. Accordingly, the Applicant incorporates by reference the arguments and remarks presented above, with respect to the traversal of the rejection of Claim 1.

Claims 17—20 depend from Claim 16 and are allowable due to their
15 dependence from an allowable base claim. These claims are also allowable for their own recited features that, in combination with those recited in Claim 16, are neither disclosed nor suggested in references of record, either singly or in combination with one another.

20 **Traversal of Rejection of Independent Claim 21**

Claim 21 recites a method for data content recognition, compression, and decompression, wherein the method is implemented at least in part by a computing device, the method comprising:

- examining data for pattern repetition;
- 25 • comparing a rate of pattern repetition to recorded rates of pattern repetition;
- determining a content type of the data; and
- compressing the data in a manner appropriate to the content type of the data.

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Claim 21 recites much of the subject matter seen in Claim 1. Therefore, Claim 21 is allowable for at least the reasons Claim 1 is allowable. Accordingly,

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the Applicant incorporates by reference the arguments and remarks presented above, with respect to the traversal of the rejection of Claim 1.

Claims 22—26 depend from Claim 22 and are allowable due to their dependence from an allowable base claim. These claims are also allowable for their own recited features that, in combination with those recited in Claim 22, are neither disclosed nor suggested in references of record, either singly or in combination with one another.

Traversal of Rejection of Independent Claim 27

Claim 27 recites a processor-readable medium comprising processor-executable instructions for:

- examining data for pattern repetition;
- comparing a rate of pattern repetition to recorded rates of pattern repetition;
- determining a content type of the data; and
- compressing the data in a manner appropriate to the content type of the data.

Claim 27 recites much of the subject matter seen in Claim 1. Therefore, Claim 27 is allowable for at least the reasons Claim 1 is allowable. Accordingly, the Applicant incorporates by reference the arguments and remarks presented above, with respect to the traversal of the rejection of Claim 1.

Claims 28—32 depend from Claim 27 and are allowable due to their dependence from an allowable base claim. These claims are also allowable for their own recited features that, in combination with those recited in Claim 27, are neither disclosed nor suggested in references of record, either singly or in combination with one another.

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Conclusion

-----The arguments presented above are intended to present the Applicant's position clearly, but should not be considered exhaustive. Accordingly, the Applicant reserves the right to present additional arguments to clarify the Applicant's position further. Moreover, the Applicant reserves the right to challenge the status as prior art of one or more documents cited in the Office Action.

The Applicant submits that the claims as presented are in condition for allowance. Accordingly, the Applicant respectfully requests that a Notice of Allowability be issued. If the Patent Office's next anticipated action is not the issuance of a Notice of Allowability, the Applicant respectfully requests that the undersigned attorney be contacted to schedule an interview.

Respectfully Submitted,

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